Remarks/Arguments

Claims 1-8, 18 and 19 stand rejected for allegedly failing to comply with the enablement requirement. The examiner argues that the examples do not support a nexus between the level of caspase 3 activity measured and viral activity, where the specification defines viral activity as viral stability and potency. The rejection is respectfully traversed.

The specification **does not define** viral activity as viral stability and viral potency. The first paragraph under the heading of Summary of the Invention, and the Abstract, both indicate that viral induction of caspase 3 activity provides a measure of viral activity and can be used to measure viral stability and potency:

> Viral induction of caspase 3 activity was found to provide a reliable measure of viral activity. Assaying viral induction of caspase 3 activity can be used, for example, in methods for **measuring viral potency and stability**, and for evaluating the stability of a virus in different formulations. [Emphasis added.]

Specification at page 1, lines 23-26, and the Abstract.

Consistent with the first paragraph of the Summary of the Invention and the Abstract, claim 1 is directed to assaying for viral activity by measuring caspase 3 activity. The caspase 3 assay described in the present application provides an alternative to measuring viral activity using the plaque forming unit (PFU) assay.

The Background of the Invention describes the PFU assay. (The specification at page 1, lines 15-20.) Counting the number plaques provides a measure of viral potency. (The specification at page 1, lines 18-20.) Examining a change in PFU over time can be used to provide viral stability. (The specification at page 1, line 20.)

Replacing the PFU assay with caspase 3 assay allows the skilled artisan to measure viral potency by measuring caspase 3 activity, and to measure viral stability by measuring changes in caspase 3 activity over time. The application provides sufficient guidance allowing the skilled artisan to practice the invention without undue experimentation. The provided guidance include examples showing a correlation between viral activity and caspase 3 activity, the reproducibility of the caspase 3 assay, and the linearity of the caspase 3 assay.

A correlation between viral activity and caspase 3 signal is illustrated in the application using different viral dilutions and by comparing results obtained with the caspase 3 assay to

results obtain with a plaque forming unit (PFU) assay. The effect of different viral dilutions is summarized in Tables 5 and 6. (The application on pages 11, line 5 to page 12, line 2.) As the multiplicity of infection was decreased through viral dilution, caspase 3 signal correspondingly decreased. Figures 4-6 provide results comparing the caspase 3 assay to a PFU assay.

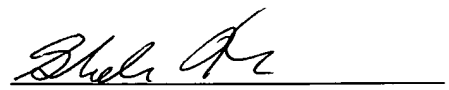
The reproducibility of the assay is illustrated in the application by repeating the assay using three vials of the same sample. (The application at pages 10, line 19 to page 11, line 4, including Table 4). Table 4 illustrates that, overall, the assay is reproducible.

The linearity of the caspase 3 assay is illustrated by measuring caspase 3 activity following viral induction. (The application at page 9, lines 1-11 and Figures 2a and 2b.) Figure 2a illustrates that the assay is linear for at least one hour using measles virus. Figure 2b illustrates that the assay is linear for at least 75 minutes using mumps virus.

With respect to the effect of apoptosis, the skilled artisan selects the conditions under which the assay is performed. The virus itself can be taken from different environments and assayed under suitable conditions. The examples provided in the application illustrate conditions where apoptosis does not prevent the assay from being used.

Please charge deposit account 13-2755 for fees due in connection with this response. If any time extensions are needed for the timely filing of the present response, applicant petition for such extensions and authorize the charging of deposit account 13-2755 for the appropriate fees.

Respectfully submitted,

By 

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